The Hispanic Paradox and Black, Non-Hispanic, Mothers in New Jersey, 2012-2015

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Background – The Hispanic Paradox

- Not a novel idea – has been researched and developed for decades

- Suggests that Hispanics, generally, have better health outcomes despite rates of poverty that are similar to those of Black, non-Hispanics (NH)

- Suggests that Hispanics are often more comparable to White, NHs despite socioeconomic status (SES) (i.e. income, education, occupation)
  - Potential explanations: selective migration of healthy individuals, better social support, and access to kin networks [1]

- Evidence to suggest that foreign-born Hispanic mothers show better pregnancy outcomes compared to mothers of other race/ethnicities
Background – NJ PRAMS

• New Jersey Pregnancy Risk Assessment Monitoring System (NJ PRAMS)

• Joint project of the New Jersey Department of Health (NJ DOH) and the Centers of Disease Control and Prevention (CDC) since 2002

• Mothers are surveyed on their feelings and experiences before, during, and after their pregnancy

• One out of 50 mothers are sampled each month, when newborns are between 2-6 months of age
  • Sampling frame used to identify and select new mothers with electronic birth certificates
  • Stratified by two variables: Maternal race/ethnicity and smoking status

• Data is used to help plan better health programs for NJ mothers and infants
NJ Data

• Between 2012-2015 (4 years), the known Hispanic/Latino population in NJ was over 6 million [2]

• The Hispanic birthrate, during this time frame, was 16.1 per every 1,000 live births compared to the Black, NH birthrate of 12.6 per every 1,000 live births [3]

• According to 2012-2015 NJ PRAMS data, most Black, NH mothers had:
  • 13 years or more of education (50.7%)
  • An annual household income of $0-$37,000 (66.7%)
  • Used Medicaid for prenatal care (PNC) (54.4%)
  • Participated in Women, Infants, and Children (WIC) during pregnancy (62.3%)
  • The lowest rates of breastfeeding initiation (78%)

• NJ has experienced an increase in the Hispanic population due to immigration and birth rates
NJ PRAMS Data – Maternal Demographics

Maternal Demographics by Race/Ethnicity in NJ, 2012-2015

Project Aim

• To focus on comparing Black, NH, White, NH, and US-born Hispanic mothers to foreign-born Hispanic mothers to determine whether effects of the Hispanic Paradox are present in NJ

• If evidence of this paradox exists, would Hispanic mothers thus make a better reference group when comparing to Black, NH mothers versus White, NH mothers
Methods

• Linked and utilized NJ PRAMS weighted data and birth certificate data from 2012-2015

• Investigated prevalence of each outcome measure:
  • Preterm birth and low birth weight
  • Tobacco and alcohol usage during pregnancy
  • Obesity
  • Breastfeeding initiation

• Logistic regression was applied to compare racial/ethnic disparities during pregnancy for outcome measures
  • Foreign-born Hispanic mothers chosen as reference group

• Odds ratios were reported after controlling for:
  • Educational attainment
  • Annual household income
  • PNC insurance coverage
  • WIC participation during pregnancy
Prevalence of Pregnancy Outcomes

Pregnancy Outcomes by Race/Ethnicity in NJ, 2012-2015

- **Preterm Birth**
  - White, NH: 7.8%
  - Black, NH: 5.6%
  - US-born Hispanic: 6.6%
  - Foreign-born Hispanic: 13.4%

- **Low Birth Weight**
  - White, NH: 12.3%
  - Black, NH: 11.8%
  - US-born Hispanic: 8.1%
  - Foreign-born Hispanic: 8.0%

- **Smoking During Pregnancy**
  - White, NH: 6.0%
  - Black, NH: 6.0%
  - US-born Hispanic: 7.9%
  - Foreign-born Hispanic: 1.2%

- **Drinking During Pregnancy**
  - White, NH: 8.0%
  - Black, NH: 11.5%
  - US-born Hispanic: 8.3%
  - Foreign-born Hispanic: 8.3%

Obesity by Race/Ethnicity in NJ, 2012-2015

- **White, NH**: 16.4%
- **Black, NH**: 34.5%
- **US-born Hispanic**: 28.3%
- **Foreign-born Hispanic**: 24.3%

Breastfeeding Initiation by Race/Ethnicity in NJ, 2012-2015

- **Foreign-born Hispanic**: 92.6%
- **US-born Hispanic**: 84.3%
- **Black, NH**: 78.0%
- **White, NH**: 82.3%
# Results – Pregnancy Outcomes

<table>
<thead>
<tr>
<th></th>
<th>White, NH</th>
<th>Black, NH</th>
<th>US-born Hispanic</th>
<th>Foreign-born Hispanic</th>
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<tbody>
<tr>
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<td>Crude OR (CI)</td>
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<td>Pregnancy</td>
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<td>Outcomes</td>
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<tr>
<td>Preterm birth</td>
<td>0.9 (0.55, 1.33)</td>
<td>0.7 (0.44, 1.24)</td>
<td>1.5 (0.92, 2.31)</td>
<td>1.4 (0.83, 2.49)</td>
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<td>1.4 (0.81, 2.49)</td>
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<td>1.3 (0.72, 2.33)</td>
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<td>1.0 (referent)</td>
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<td>Low birth</td>
<td>1.2 (0.66, 2.03)</td>
<td>1.1 (0.57, 2.12)</td>
<td>2.9 (1.62, 5.07)*</td>
<td>2.6 (1.39, 4.87)*</td>
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<td>weight</td>
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<td>1.7 (0.82, 3.41)</td>
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<td>1.5 (0.72, 3.23)</td>
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<td></td>
<td>1.0 (referent)</td>
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<td>Drinking</td>
<td>1.5 (0.96, 2.20)</td>
<td>1.0 (0.60, 2.19)</td>
<td>0.7 (0.45, 1.19)</td>
<td>0.7 (0.41, 1.26)</td>
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<td>during</td>
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<td>1.4 (0.82, 2.45)</td>
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<td>pregnancy</td>
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<td>1.3 (0.71, 2.50)</td>
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<td>1.0 (referent)</td>
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<td>Obesity</td>
<td>0.8 (0.61, 1.05)</td>
<td>1.0 (0.74, 1.36)</td>
<td>1.3 (1.00, 1.78)</td>
<td>1.4 (1.06, 1.97)*</td>
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<td>0.8 (0.59, 1.18)</td>
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<td>0.9 (0.64, 1.32)</td>
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<td>1.0 (referent)</td>
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<tr>
<td>Breastfeeding</td>
<td>0.3 (0.16, 0.52)*</td>
<td>0.2 (0.10, 0.36)*</td>
<td>0.3 (0.15, 0.51)*</td>
<td>0.3 (0.13, 0.51)*</td>
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<tr>
<td>initiation</td>
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<td>0.3 (0.15, 0.67)*</td>
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<td>0.3 (0.15, 0.66)*</td>
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<td>1.0 (referent)</td>
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OR = odds ratio; CI = confidence interval; Adj. = adjusted
+ Adjusted for education, annual household income, PNC insurance, and WIC participation
* Indicates significant p-value
Conclusions

• Using foreign-born Hispanic mothers as a reference group and after adjusting for education, income, PNC insurance, and WIC participation:
  • The odds of having a low birth weight baby for Black, NH mothers were over two-and-a-half times that of foreign-born Hispanic mothers, with an odds ratio (OR) of 2.6 (95% CI: 1.39, 4.87)

  • Black, NH mothers were 40% more likely (OR=1.4; 95% CI: 1.06, 1.97) than foreign-born Hispanic mothers to be obese

  • Both Black, NH and US-born Hispanic mothers were 70% less likely (OR=0.3; 95% CI: 0.13, 0.51 and 0.15, 0.66, respectively) than foreign-born Hispanic mothers to initiate breastfeeding while White, NH mothers were 80% less likely (OR=0.2; 95% CI: 0.10, 0.36) to initiate breastfeeding

  • There is evidence of the Hispanic Paradox in play among NJ mothers
Conclusions

• Despite having high rates of Medicaid and no insurance for prenatal care, foreign-born Hispanic mothers showed more favorable outcomes when compared to mothers of other racial/ethnic groups examined here.

• Foreign-born status may serve as a protective factor.

• Black, NH mothers still demonstrated poorer health outcomes even though they were comparable to US-born Hispanics in terms of SES.
  • May be a result of:
    • Stronger ties within the Hispanic community
    • Social support systems
    • Practicing better health behaviors

• More attention needs to be paid to interventions targeted at Black, NH mothers with regards to accessing better social support systems.
Public Health Implications

- The Hispanic Paradox links better social support and kin networks to better health outcomes for Hispanics.

- A greater access to such social/community services would increase better social support systems for pregnant women and mothers.
Strengths and Limitations

**Strengths**
- NJ PRAMS sample is representative of the population
- Impact of maternal nativity on breastfeeding initiation
- Compared racial/ethnic groups of similar SES and showed differences

**Limitations**
- Availability of data/data lag – 2015 most current
- No grasp on how long foreign-born mothers have been in the United States with respect to acculturation
- Lack of responses for questions surrounding alcohol consumption before, during, and after pregnancy
Sources


[2] Centers of Disease Control and Prevention (CDC) and the National Center of Health Statistics (NCHS)
https://wonder.cdc.gov/controller/datarequest/D143

[3] New Jersey State Health Assessment Data (NJ SHAD)
https://www26.state.nj.us/doh-shad/query/result/birth/BirthPopCnty/BirthRate.html
Questions